Cassette Car radio 22 DC 677/62

22 DC 679/62B/62E

Service
Service
Service

ERSATZTEILE
für Philips Car Systems
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KiVi Service GmbH
Windmühlenstr. 41 · 31178 Giesen/Emmerke
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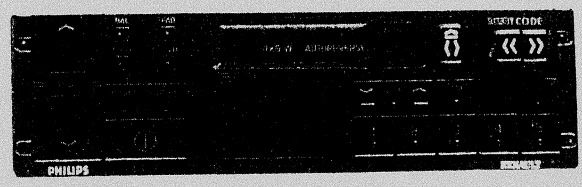

For repair information of the tape-deck, see Service Manual of auto cassette deck P6-23.

ServiceManual

Contents

Controls and connection	2
Technical data	3
ESD - Warning	3
Activating/Deactivating protection and display test	4
Programming presets	5
Block diagram	6
Voltages	7
Voltages	8
Lay-out	9-10
Main panel HF part	11-12
Main panel PREAMP part	13-14
Main panel BF + SUPPLY part	15-16
Main panel MICRO part	17-18
Adjustments and checking	19
Connecting block	20
Servicing hints and tools	20
Exploded view and mechanical parts list	21-22
Electrical parts list	23-24

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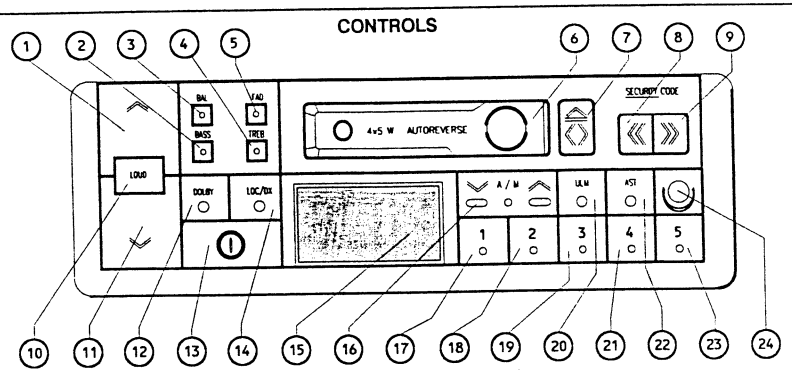
PHILIPS

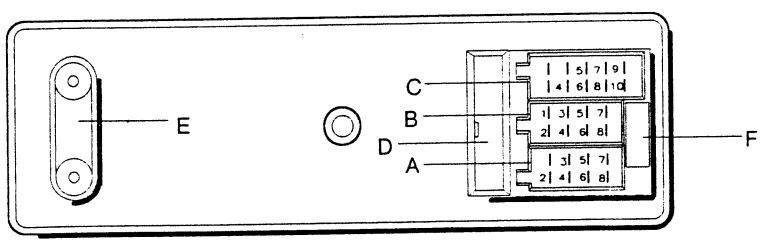
CS 35 466

CONTROLS



1. (Volume,Tone,Balance,Fader)UP
2. BASS SELECTION
3. BALANCE SELECTION
4. TREBLE SELECTION
5. FADER SELECTION
6. CASSETTE APERTURE WITH FLAP
7. EJECT / REVERSE
8. FAST REWIND
9. FAST FORWARD
10. LOUDNESS
11. (Volume,Tone,Balance,Fader)DOWN
12. DOLBY/INFO SELECTION
13. ON / OFF
14. LOCAL / DX
15. LIQUID CRISTAL DISPLAY
16. SEARCH UP / DOWN
17. PRESET 1
18. PRESET 2
19. PRESET 3
20. BAND SELECTION
21. PRESET 4
22. AUTOSTORE
23. PRESET 5
24. COMPACT-DISC IN

REAR VIEW



E:AERIAL PLUG

A:POWER SUPPLY

- A2 LIGHTINGS
- A3 SPEACH SYNTHESISIS
- A4 PERMANENT SUPPLY
- A5 AUTOMATIC AERIAL
- A6 CONTROLLED ILLUMINATION
- A7 SUPPLY
- A8 MASS

F:FUSE

B:LOUDSPEAKERS

- B1 REAR RIGHT +
- B2 REAR RIGHT -
- B3 FRONT RIGHT +
- B4 FRONT RIGHT -
- B5 FRONT LEFT +
- B6 FRONT LEFT -
- B7 REAR LEFT +
- B8 REAR LEFT -

C:REMOTE SUPPLY

- C4 SCREENING MASS
- C5 REMOTE CONTROL
- C6 REMOTE CONTROL
- C7 REMOTE CONTROL
- C8 REMOTE CONTROL
- C9 REMOTE CONTROL
- C10 REMOTE CONTROL

D:BUS IIC

- D4 MASS
- D6 IIC CLOCK
- D7 IIC DATA

TECHNICAL DATA

General

Power supply	: +14.4 V
Dimensions (wxhxd)	: 180x51x150 mm.

Radio

LW	: 144-288 kHz
MW	: 531-1611 kHz
FM	: 87.5-108 kHz
IF-AM	: 10.7 MHz
IF-FM	: 10.7 MHz
Sensitivity 26dB S/R	: 40 µV (LW)
	: 29 µV (MW)
	: 3 µV (FM)
Limitation α-3dB	: 15 µV
10 dB crosstalk	: 150 ± 50µV

Cassette player

Number of tracks	: 2x2
Tape speed	: 4.76 cm/sec ± 2%
Wow and flutter	: ≤ 0.35 %
Crosstalk	: ≥ 32 dB
Dolby B	: ≥ 8 dB

Amplifier

Output power (D=10%)	: 4x5 W ± 1 dB (4x4Ω)
	: 2x16 W ± 1 dB (2x4Ω)
Bass	: +10/-10 ± 2 dB (100 Hz)
Treble	: +10/-10 ± 2 dB (10 kHz)

ESD

GB WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. keep components and tools also at this potential.

D WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenuber elektrostatischen Entladungen (ESD)
Unsorgfaltige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall uber ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerates.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

NL WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het aparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

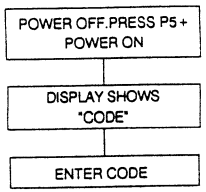
F ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

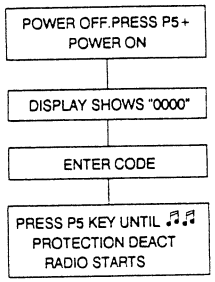
I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili a la scariche statische (ESD).
La loro longevità potrebbe fortemente ridatta in caso di non osservazione della piu grande cauzione alla loro manipolazione.
Durante le riparazioni occore quindi essere collegato allo stesso potenziale che quello della massa dell'apparechio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

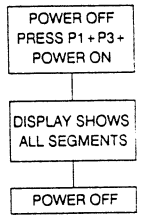
ACTIVATING PROTECTION



DEACTIVATING PROTECTION

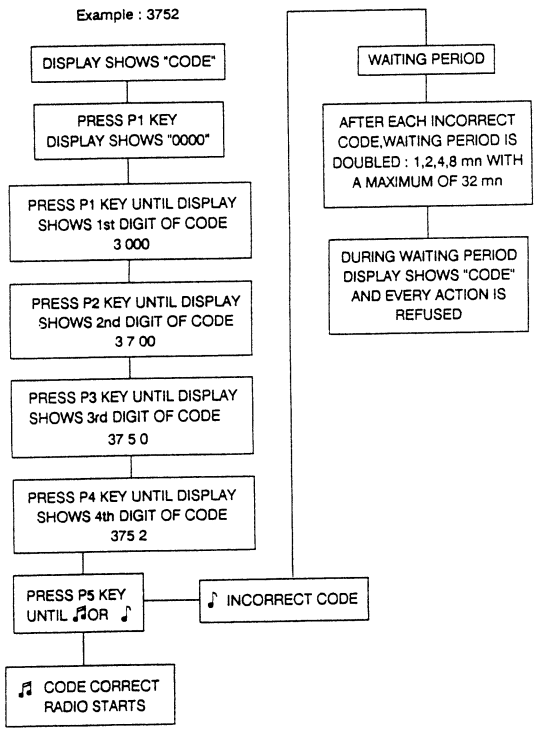


DISPLAY TEST

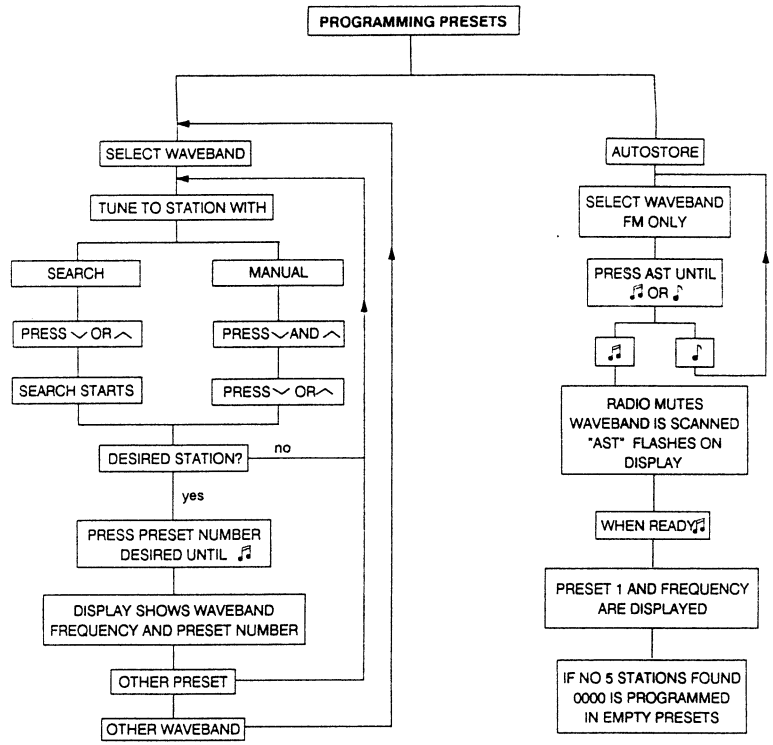


ENTERING A CODE

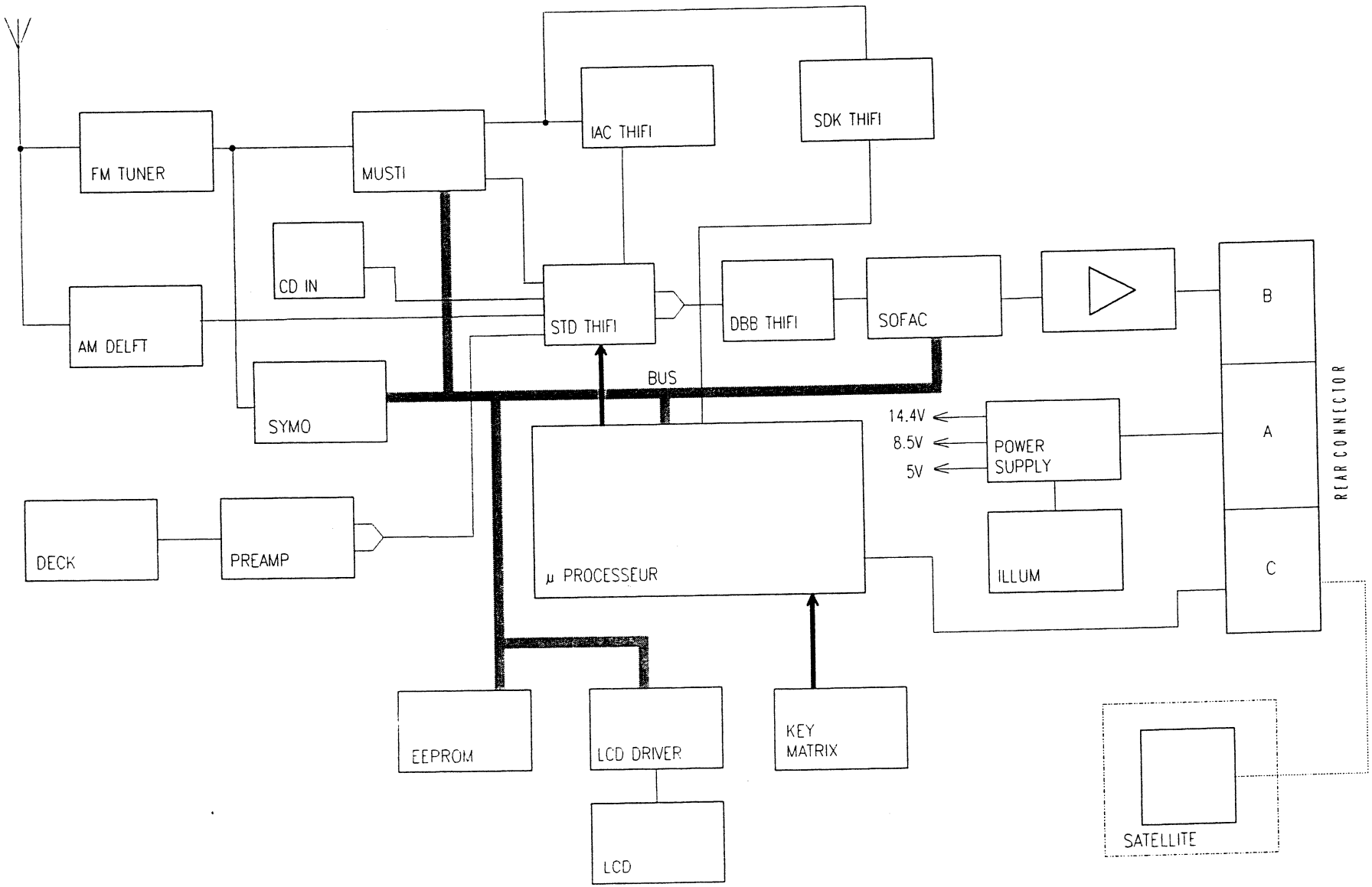
Example : 3752


DISPLAY SHOWS "CODE"
PRESS P1 KEY DISPLAY SHOWS "0000"
PRESS P1 KEY UNTIL DISPLAY SHOWS 1st DIGIT OF CODE 3 000
PRESS P2 KEY UNTIL DISPLAY SHOWS 2nd DIGIT OF CODE 3 7 00
PRESS P3 KEY UNTIL DISPLAY SHOWS 3rd DIGIT OF CODE 37 5 0
PRESS P4 KEY UNTIL DISPLAY SHOWS 4th DIGIT OF CODE 375 2
PRESS P5 KEY UNTIL ♫ OR ♪
♪ INCORRECT CODE
WAITING PERIOD
AFTER EACH INCORRECT CODE,WAITING PERIOD IS DOUBLED : 1,2,4,8 mn WITH A MAXIMUM OF 32 mn
DURING WAITING PERIOD DISPLAY SHOWS "CODE" AND EVERY ACTION IS REFUSED
♫ CODE CORRECT RADIO STARTS

PROGRAMMING PRESETS



BLOCK DIAGRAM



LEGEND

...V	position AM
...V*	position AM, with signal, set tuned
[...V]	position FM M=MONO, S=STEREO
[...V*]	position FM, with signal, set tuned
...V▸	position play, normal
...V◂	position play, reverse
[...V MSS]	position fast wind, MSS
[...V ME]	position play, METAL
[...V DB]	position play, DOLBY
GND	GROUND (Mass)

7050 TEA6200

1 = 6.6 V
2 = 4.0 V
3 = 8.2 V
4 = 8.2 V
5 = 8.2 V
6 = 8.2 V
7 = 0.7 V
8 = 4.0 V
9 = 4.0 V
10 = 4.0 V
11 = 6.7 V
12 = 2.8 V
13 = 4.7 V
14 = 8.4 V [0.2 V]
15 = 4.7 V
16 = 4.7 V
17 = GND
18 = 1.0 V
19 = 1.3 V
20 = 3.3 V

7150 TEA6100

1 = 8.3 V [8.2 V]
2 = 0.6 V
3 = [1.0 V - 5.0 V *] [0.5 V]
4 = [0.0 V]
5 = [0.6 V *] [0.1 V]
6 = 40 kHz
7 = GND
8 = 8.3 V
9 = 4.6 V
10 = 4.6 V
11 = 2.9 V [3.9 V]
12 = 4.6 V
13 = 4.6 V
14 = 2.4 V
15 = 4.4 V
16 = 3.0 V
17 = 3.0 V
18 = 3.0 V
19 = 3.0 V
20 = GND

7152 BC 847 B

e = 0 V
b = [0.1 V] [0.3 V*]
c = [0.6 V] [5 V*]

7151 TSA6057

1 = 4 MHz
2 = 4 MHz
3 = 4.7 V
4 = GND
5 = [1.8 V]
6 = 1.8 V
7 = 1.8 V
8 = 8.3 V [≤ 0.8 V]
9 = 40 kHz
10 = SDA (4.6 V)
11 = SCL (4.6 V)
12 = GND
13 = [1.3 - 5.5 V]
14 = [2.1 V]
15 = [1.3 -5.5 V]
16 = 8.5 V

7451 PCF 8576T

1 = DATA
2 = CLOCK
3 = N.C.
4 = N.C.
5 = +5 V
6-12 = GND
13-15 = COMMON
16 = N.C.
17-28 = N.C.
29-56 = SEGMENTS

7452 ST24C02CP

1 = GND
2 = GND
3 = GND
4 = GND
5 = DATA
6 = CLOCK
7 = GND
8 = 5.3 V

7450 TMP47C800N

1 = 0 V [8.5 V DB]
2 = 5 V
3 = 0 V
5 V (Mute ON)
4 = 0 V (RADIO)
5 V (CASSETTE)
5 = 5 V (Delayed ON)
6 = BLEEP (1kHz)
7 = 0 V ▸◂
5 V (RADIO/CD ON/FF FR)
8 =
9 =
10 = 0.2 V▸ 5 V◂
11 = 2.8 V
12 = 0.7 V 0 V(CD ON)
13 = 3 V
14 = 0 V
15 = N.C.
16 = KEYBOARD
17 = N.C.
18-20 = KEYBOARD
21 = GND
22-23 = KEYBOARD
24 = LO/DX
25 = MUTE CASSETTE
26-29 = KEYBOARD
30 = GND
31 = 4 MHz
32 = 4 MHz
33 = 5 V RESET
34 = 4.2 V HOLD
35 =
36 = 0 V 5 V(CD ON)
37 = Metal/Chrome
38 = 4 V CASSETTE
39 = 1 V Head control
40 = DATA
41 = CLOCK
42 = +5 V

LEGEND

...V	position AM
...V*	position AM, with signal, set tuned
[...V]	position FM M=MONO, S=STEREO
[...V*]	position FM, with signal, set tuned
...V▸	position play, normal
...V◂	position play, reverse
[...V MSS]	position fast wind, MSS
[...V ME]	position play, METAL
[...V DB]	position play, DOLBY
GND	GROUND (Mass)

1200 IAC THIFI

2 = 2.7 V
4 = 0 - 3.6 V
5 = 4.3 V
6 = 8.1 V
7 = 8.4 V
8 = GND

1201 STD THIFI

1 = 4.9 V
2 = 3.3 V
3 = 3.3 V
4 = 2.7 V
5 = 3.3 V
6 = GND
7 = 0.7 V - 1.3 V
8 = 8 V
9 = 0.6 V - 4.7 V
10 = 0 V - 3.7 V
11 = 0 V
12 = 3.3 V
13 = 0 V
5 V (Mute ON)
5 V (during SEARCH)
15-20 = 3.3 V

1400 SDK THIFI

1 = GND
2 = 4.2 V
4.5 V (SK/DK)
3 = 0 V
5 V (DK)
4 = N.C.
5 = 0 V
5 V (BK)
6 = N.C.
10 = 8.5 V

1251 DBB THIFI

1 = 0 V▸ [8.5 V DB]
2 = 0 V
3 = 4 V
4 = 3.4 V
5 = GND
6 = GND
7 = 3.4 V
8 = 4 V
9 = GND
10 = 8.5 V

7550 TEA6310

1 = DATA
2 = GND
3 = 4.3 V
4 = 4.3 V
5 = 4.3 V
6 = 4.3 V
7 = 4.3 V
8 = N.C.
9 = 5.7 V
10 = N.C.
11 = 8.5 V
12 = N.C.
13 = N.C.
14 = 4.2 V
15 = 4.2 V
16 = N.C.
17 = N.C.
18 = GND
19 = N.C.
20 = 4.3 V
21 = N.C.
22 = 4.3 V
23 = 4.3 V
24 = 4.3 V
25 = 4.3 V
26 = 4.3 V
27 = 8.5 V
28 = CLOCK

7650 / 7651 TDA1516BQ

1 = 2.1 V
2 = 2.1 V
3 = GND
4 = 2.1 V
5 = 6.9 V
6 = 14.4 V
7 = GND
8 = 14.4 V
9 = 6.3 V
10 = 14.4 V
11 = 14 V
12 = 6.9 V
13 = 2.1 V

7751 L 4904

1 = 13.1 V
2 = 14.3 V
3 = 5.6 V
4 = GND
5 = N.C.
6 = 4.2 V
7 = 5 V
8 = 5 V

7750 L 4918

1 = 14.4 V
2 = 2.5 V
3 = GND
4 = GND
5 = 8.5 V

7251 BC 847B

e = GND
b = 0.6 V
0.7 V (CASSETTE)
c = 0 V
1 V (CASSETTE)

7210 / 7211 BC 858 B

e = 1.5 V
1.2 V (MUTE ON)
b = 0.9 V
1.2 V (MUTE ON)
c = 1.5 V
0 V (MUTE ON)

7213 BC 858 B

e = 1.5 V
1.2 V (MUTE ON)
b = 5 V
0.6 V (MUTE ON)
c = 0.7 V
1.2 V (MUTE ON)

7351 / 7352 BFS19

e = 2.3 V
b = 3 V
c = 5.8 V

7353 / 7354 BC 547

e = GND
b = 0.6 V
0 V (CD IN)
c = 0 V

7752 BD 438

e = 14.3 V
b = 13.5 V ON
14.4 V OFF
c = 14.3 V ON
0 V OFF

7753 BC 547

e = 0.8 V ON
0 V OFF
b = 1.4 V ON
0 V OFF
c = 0.8 V ON
14.4 V OFF

7754 BC 547

e = GND
b = 0.8 V ON
0 V OFF
c = 0.8 V ON
14.4 V OFF

7755 BD 437

e = 5.5 V
b = 14.2 V
c = 14.2 V

7756 / 7758 BC 847 B

e = GND
b = 0.7 V
c = 0 V

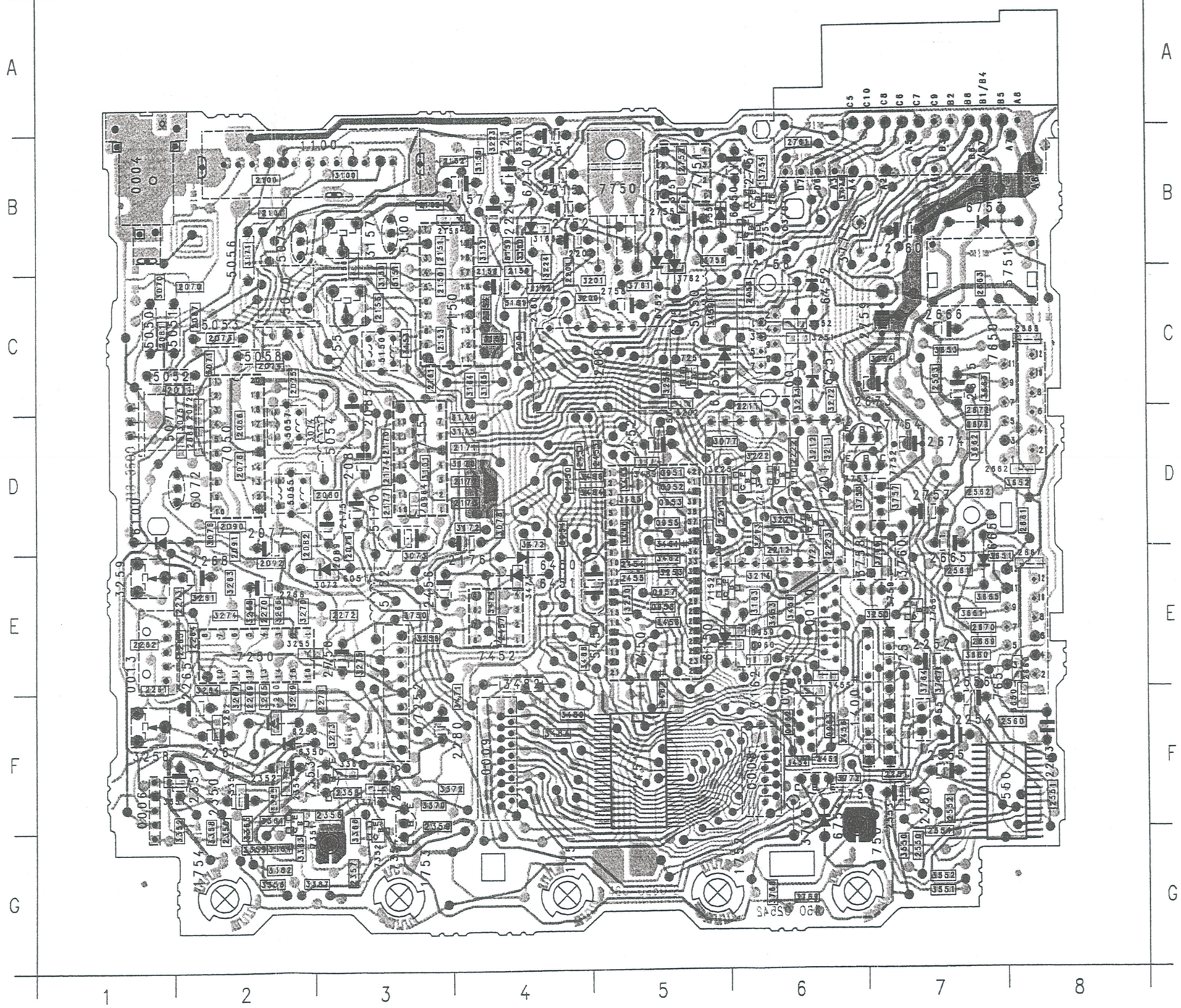
7757 BC 847 B

e = GND
b = 0 V
c = 5 V

7759 BC 635

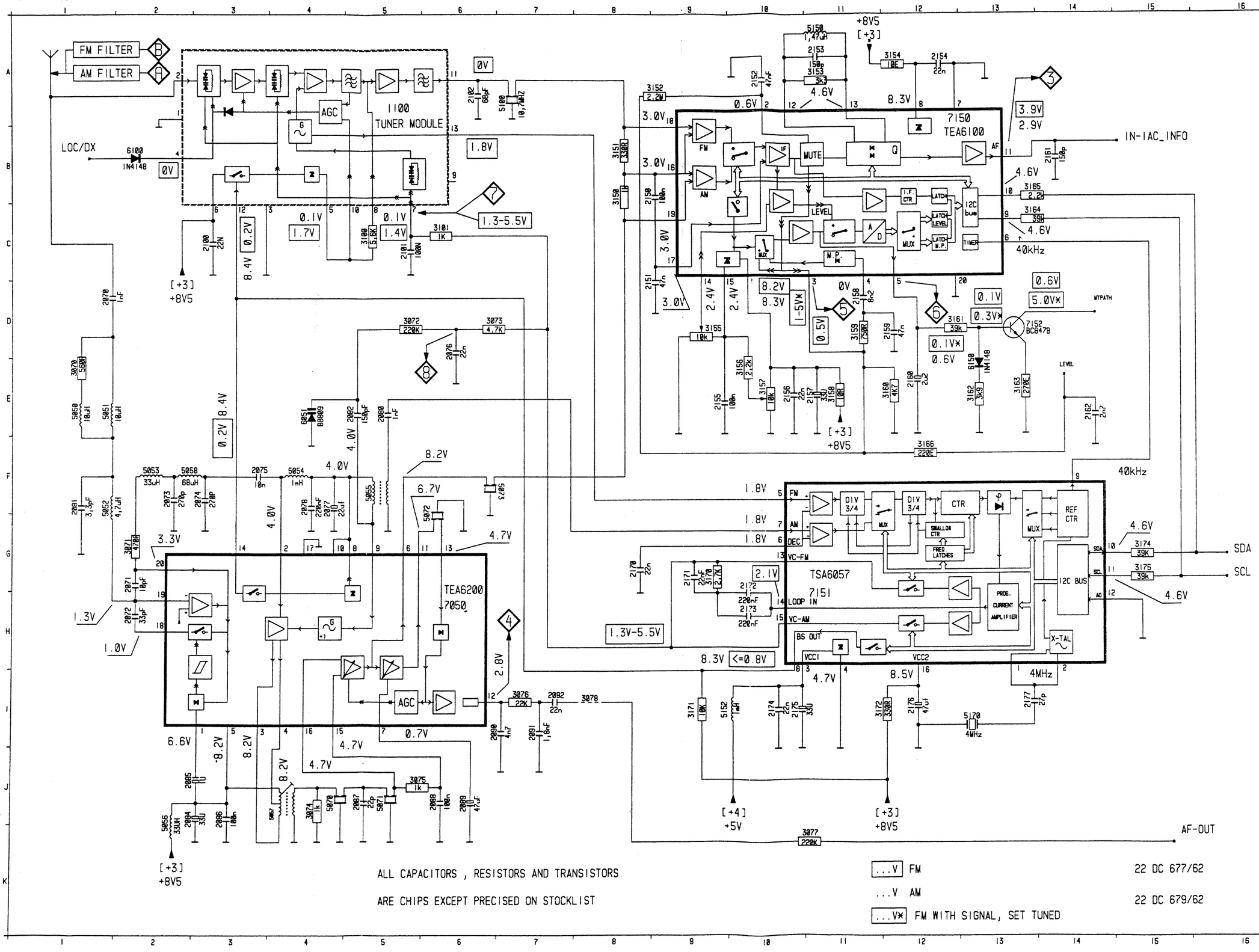
e = 12.3 V ON
3.4 V OFF
b = 13 V
c = 13.5 V ON
0 V OFF

0004	B 1	2261	E 1	3161	C 4	3550	G 7	7754	D 7
0006	F 1	2262	E 1	3162	F 6	3551	G 7	7755	F 7
0007	F 6	2263	E 2	3163	E 6	3552	G 7	7756	E 7
0008	F 6	2264	E 2	3164	C 4	3650	F 8	7757	B 6
0009	F 4	2265	E 2	3165	C 4	3651	E 7	7758	B 6
0010	E 6	2266	E 2	3166	B 4	3652	D 8	7759	F 6
0011	C 6	2267	F 2	3170	D 4	3653	C 7		
0013	E 1	2268	E 2	3171	B 2	3660	E 7		
0950	D 5	2269	F 2	3172	D 4	3661	E 7		
0951	D 5	2270	E 2	3174	D 4	3662	D 7		
0952	D 5	2271	F 3	3175	D 4	3663	C 7		
0953	D 5	2272	E 3	3200	C 4	3664	C 7		
0954	D 4	2273	E 2	3201	C 5	3665	E 7		
0955	D 5	2280	F 4	3202	D 5	3750	E 3		
0956	D 5	2350	F 2	3210	B 4	3751	B 5		
0957	E 5	2351	F 2	3211	D 6	3753	D 6		
0958	E 5	2352	F 2	3212	D 6	3754	B 6		
0959	E 6	2353	F 3	3213	D 6	3755	B 5		
0960	E 6	2354	F 2	3214	E 6	3756	B 5		
0961	E 6	2355	F 2	3221	D 6	3757	D 7		
0962	F 6	2356	F 3	3222	D 6	3758	E 6		
0963	F 6	2357	G 3	3223	B 4	3759	E 7		
0964	D 3	2358	F 3	3224	B 4	3760	E 7		
1100	B 3	2359	F 3	3225	D 5	3761	C 5		
1200	C 5	2450	D 4	3230	E 5	3762	C 5		
1201	D 6	2451	D 4	3250	E 7	3764	E 7		
1251	E 7	2452	D 5	3251	C 6	3766	E 7		
1400	F 6	2453	D 5	3252	C 6	3767	E 7		
1750	G 7	2454	E 5	3253	E 5	3768	G 6		
1751	G 4	2455	E 5	3254	C 5	3769	G 6		
1752	G 6	2456	E 3	3255	E 2	3772	F 6		
1753	G 3	2457	E 4	3256	E 3	3773	G 6		
1754	G 2	2458	C 6	3258	F 1	3777	B 6		
2070	C 2	2550	G 7	3259	E 1	5050	C 1		
2071	C 2	2551	F 8	3260	F 2	5051	C 1		
2072	C 2	2552	F 7	3261	E 2	5052	C 1		
2073	C 2	2553	F 7	3262	F 2	5053	C 2		
2074	C 2	2554	G 7	3263	E 2	5054	D 3		
2075	C 2	2555	F 7	3264	E 2	5055	D 2		
2076	D 3	2556	E 7	3265	F 2	5056	B 2		
2077	D 2	2560	F 8	3266	E 2	5057	D 2		
2078	D 2	2561	E 7	3267	F 2	5058	C 2		
2080	D 3	2562	D 7	3268	E 2	5070	C 2		
2081	C 1	2563	C 7	3269	F 2	5071	D 1		
2082	D 2	2660	E 8	3270	E 2	5072	D 2		
2084	D 3	2661	D 8	3271	C 6	5073	B 2		
2085	C 3	2662	D 7	3272	C 6	5100	B 3		
2086	D 2	2663	C 7	3273	F 3	5150	C 3		
2087	C 2	2665	E 7	3274	E 2	5152	E 3		
2088	D 2	2666	C 7	3275	E 3	5170	D 3		
2089	E 3	2667	E 8	3351	F 1	5170	D 3		
2090	D 2	2668	C 8	3352	F 2	5450	E 5		
2091	D 2	2669	E 7	3355	F 2	5750	C 5		
2092	E 2	2670	E 7	3356	G 2	5751	C 8		
2100	B 2	2671	D 7	3357	F 2	6051	E 3		
2101	B 2	2672	D 7	3358	F 2	6100	D 1		
2102	B 3	2673	C 7	3359	G 2	6150	E 5		
2150	C 3	2674	D 7	3361	F 2	6210	B 4		
2151	B 3	2675	C 7	3362	G 2	6251	C 6		
2152	B 4	2750	E 3	3363	G 2	6252	C 5		
2153	C 3	2751	B 4	3364	G 2	6253	F 2		
2154	C 4	2752	B 4	3365	F 2	6350	F 2		
2155	C 3	2753	B 5	3366	F 3	6450	E 4		
2156	B 3	2754	B 6	3367	G 3	6451	E 4		
2157	B 4	2755	B 5	3369	F 3	6452	C 6		
2158	C 4	2756	B 6	3370	F 3	6650	D 7		
2159	C 4	2757	D 7	3371	F 3	6750	B 6		
2160	C 4	2758	C 5	3372	F 3	6751	C 5		
2161	C 3	2759	C 7	3450	E 6	6752	C 5		
2162	C 4	2760	B 7	3451	F 6	6753	B 7		
2170	D 3	2761	B 6	3452	E 6	6754	G 6		
2171	D 4	3070	C 1	3453	E 6	7050	D 2		
2172	D 4	3071	C 2	3454	F 6	7150	C 4		
2173	D 4	3072	E 3	3455	E 6	7151	D 3		
2174	D 3	3073	E 3	3456	F 6	7152	E 5		
2175	D 3	3074	D 2	3458	E 5	7210	D 6		
2176	E 4	3075	D 2	3459	C 5	7211	E 6		
2177	D 3	3076	D 2	3460	D 5	7213	D 6		
2200	C 4	3077	D 5	3461	D 5	7250	E 2		
2201	C 4	3078	D 4	3462	E 5	7251	C 5		
2202	B 4	3100	B 3	3463	D 5	7252	F 3		
2210	B 4	3101	D 3	3464	D 5	7351	G 2		
2210	B 4	3150	C 3	3465	D 5	7352	G 3		
2211	C 6	3151	C 3	3466	D 5	7353	F 2		
2212	E 6	3152	B 4	3471	F 4	7354	G 3		
2213	D 5	3153	C 3	3472	D 4	7450	E 5		
2215	B 4	3154	C 4	3473	E 4	7451	F 5		
2221	B 4	3155	C 3	3474	E 4	7452	E 4		
2222	D 6	3155	C 3	3476	B 6	7550	F 7		
2223	D 6	3156	B 3	3480	F 4	7650	C 7		
2250	F 7	3157	B 3	3482	E 4	7651	E 7		
2251	F 7	3157	B 3	3484	F 4	7750	B 5		
2252	E 7	3158	B 4	3487	F 5	7751	B 5		
2253	F 8	3159	B 4	3488	E 4	7752	D 7		
2254	F 7	3160	B 4	3489	D 5	7753	D 6		

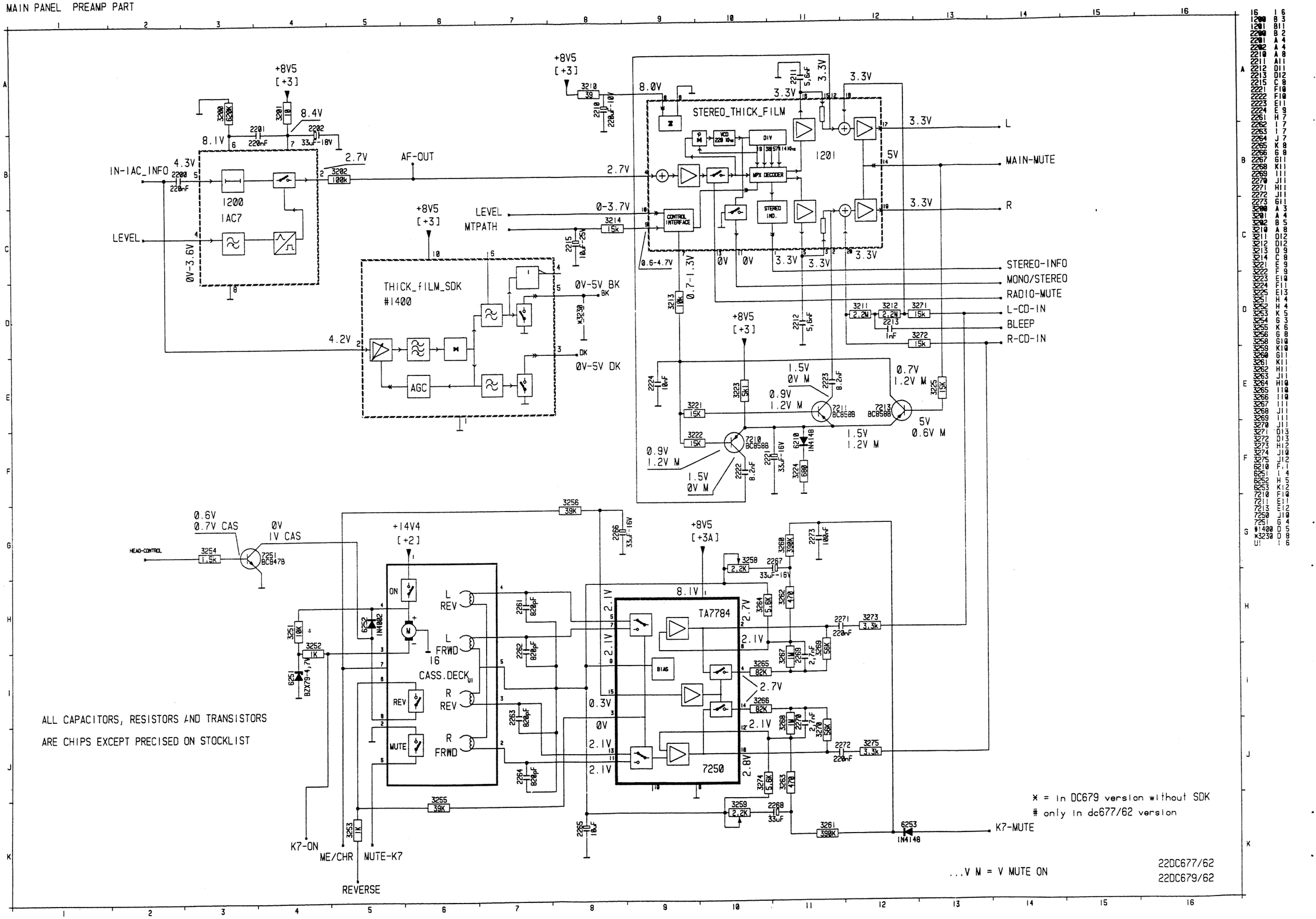


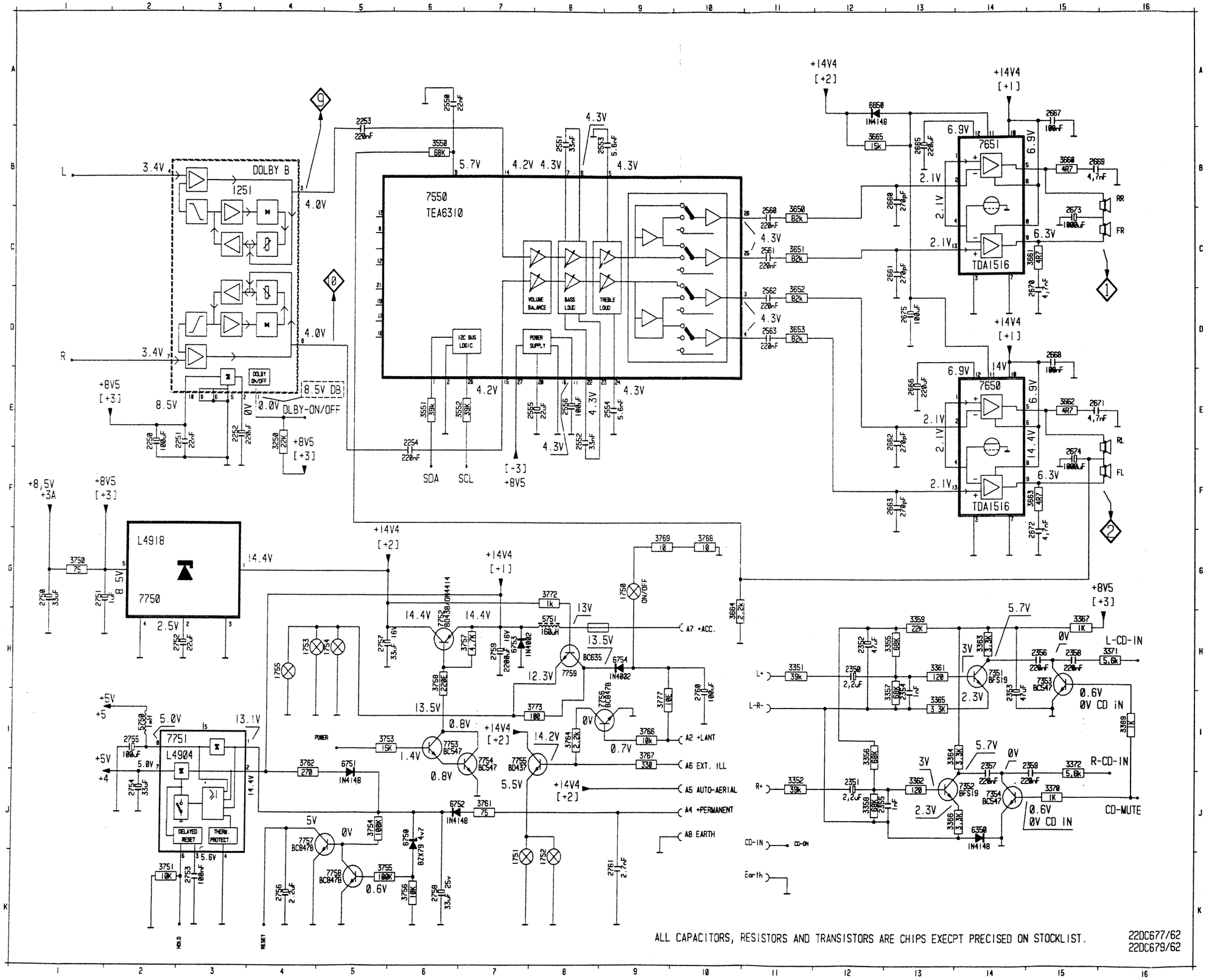
ONLY WHITH 22DC677/62
* ONLY WHITH 22DC679/62

MAIN PANEL HF PART



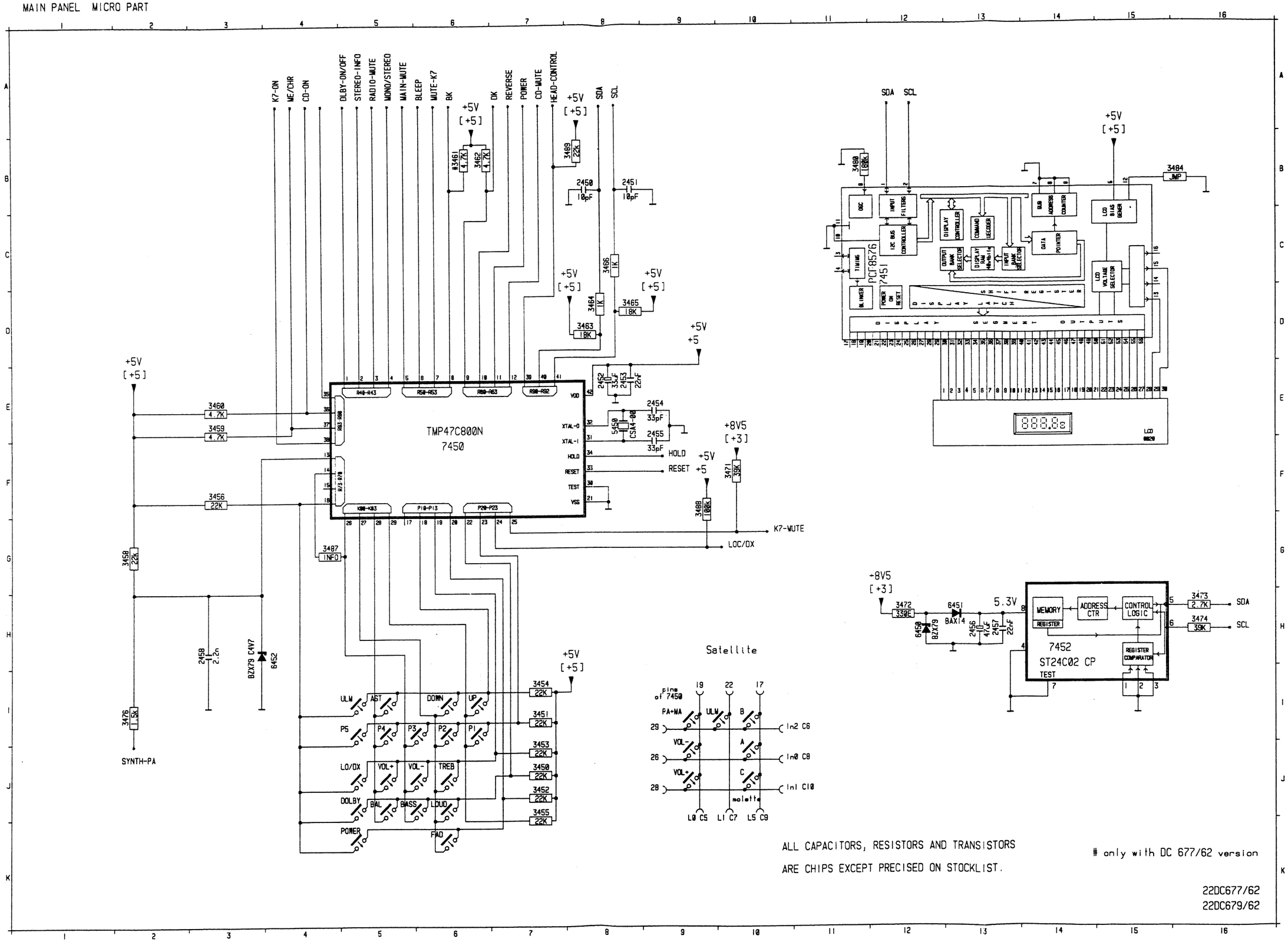
1100	A	5
2070	D	1
2071	G	2
2072	F	2
2073	F	2
2074	F	3
2075	F	3
2076	D	6
2077	F	4
2078	F	4
2080	F	5
2081	F	5
2082	F	5
2084	J	2
2085	J	2
2086	J	3
2087	J	5
2088	J	6
2089	J	6
2090	H	6
2091	I	7
2092	I	7
2100	C	3
2101	C	5
2102	A	6
2150	B	8
2151	D	8
2152	A	10
2153	A	11
2154	A	12
2155	E	9
2156	E	10
2157	E	11
2158	D	11
2159	D	12
2160	E	12
2161	B	14
2162	E	14
2170	G	8
2171	G	9
2172	G	10
2173	H	10
2174	I	10
2175	I	10
2176	I	12
2177	I	13
3070	E	1
3071	G	2
3072	D	5
3073	D	6
3074	J	4
3075	J	5
3076	I	7
3077	K	1
3078	I	8
3100	C	5
3101	C	6
3150	B	8
3151	B	8
3152	A	9
3153	A	11
3154	A	12
3155	D	9
3156	E	10
3157	E	10
3158	E	11
3159	D	11
3160	E	12
3161	D	12
3162	E	13
3163	E	13
3164	C	13
3165	B	13
3166	F	12
3170	G	9
3171	I	9
3172	I	11
3174	G	15
3175	G	15
5050	E	1
5051	E	1
5052	F	1
5053	F	2
5054	F	4
5055	F	5
5056	J	2
5057	J	4
5058	F	2
5070	J	4
5071	J	5
5072	F	6
5073	F	7
5100	A	7
5150	A	11
5152	I	9
5170	I	13
6051	E	4
6100	B	2
6150	E	13
7050	H	6
7150	A	12
7151	H	11
7152	D	13


+8V5 [+3]
8.4V
8.1V
2.7V
AF-OUT
IN-IAC_INFO
4.3V
1200 IAC7
LEVEL
0V-3.6V
THICK_FILM_SDK #1400
4.2V
AGC
0V-5V BK
0V-5V DK
LEVEL
MTPATH
0-3.7V
0.6-4.7V
0.7-1.3V
STEREO_THICK_FILM
1201
CONTROL INTERFACE
MPX DECODER
STEREO IND.
3.3V
5V
L
MAIN-MUTE
R
STEREO-INFO
MONO/STEREO
RADIO-MUTE
L-CD-IN
BLEEP
R-CD-IN
0.9V 1.2V M
1.5V 0V M
0.7V 1.2V M
1.5V 1.2V M
0.9V 1.2V M
1.5V 0V M
0V 0.6V M
0.6V 0.7V CAS
0V 1V CAS
HEAD-CONTROL
+14V4 [+2]
+8V5 [+3A]
ON
L REV
L FRWD
16 CASS.DECK
R REV
R FRWD
REV
MUTE
TA7784
BIAS
7250
8.1V
2.7V
2.1V
0.3V
0V
2.8V
K7-ON
ME/CHR
MUTE-K7
REVERSE
K7-MUTE
ALL CAPACITORS, RESISTORS AND TRANSISTORS
ARE CHIPS EXCEPT PRECISED ON STOCKLIST
* = in DC679 version without SDK
# only in dc677/62 version
...V M = V MUTE ON
22DC677/62
22DC679/62



ALL CAPACITORS, RESISTORS AND TRANSISTORS ARE CHIPS EXECPT PRECISED ON STOCKLIST.

22DC677/62
22DC679/62



ALL CAPACITORS, RESISTORS AND TRANSISTORS ARE CHIPS EXCEPT PRECISED ON STOCKLIST.

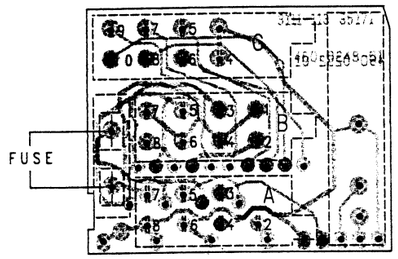
only with DC 677/62 version

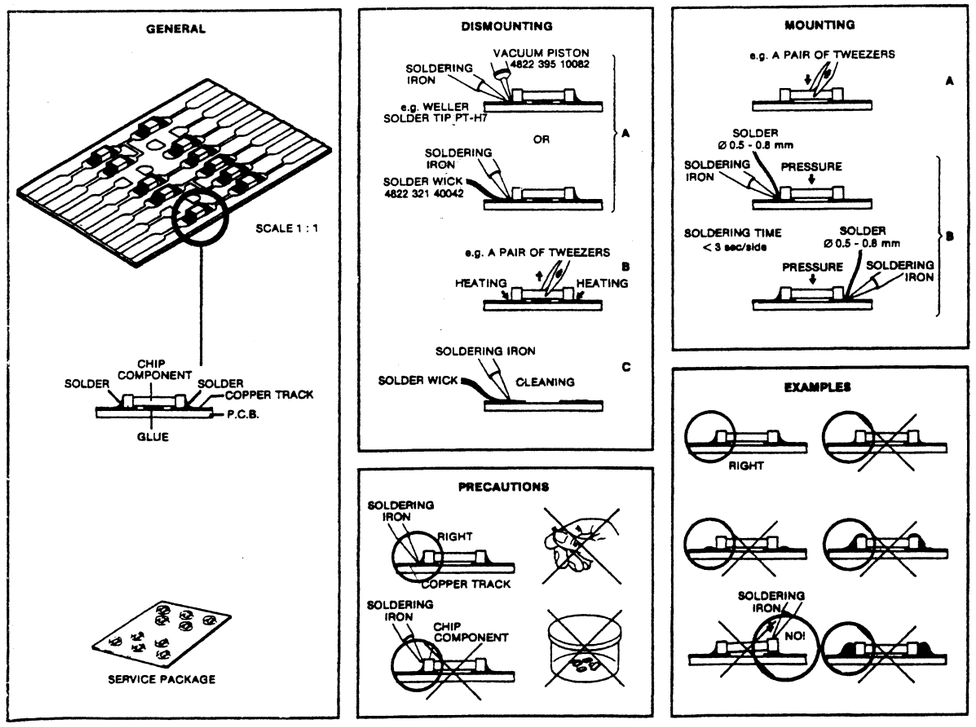
22DC677/62
22DC679/62

For adjusting and checking see general procedures

Check	SK	→	◇	▭	Setting of controls	⌒	⊓
FM-Mute	FM	93 MHz 1 mV	B			① 0 dB (775 mV)	
		no signal				① <-24dB	
Demodulated FM levels	FM	98 MHz 1 mV △f=22,5 kHz f mod=1 kHz	B			③ 200mV ± 1dB	
		98 MHz 1 mV △f=6,75 kHz f mod=19 kHz				③ 50mV ± 1dB	
		98 MHz 1 mV f=3,75 kHz f mod=57 kHz				③ 20mV ± 1dB	
Demodulated AM level	MW	1053 kHz 1 mV 1 kHz 30% AM	A			250 mV⩽ ④ ⩽500 mV	
VC-FM	FM			87,5 MHz		⑦ > 1,0 V DC	
				108 MHz		⑦ < 6,5 V DC	
VC-AM	LW			144 kHz		⑧ > 0,8 V DC	
	MW			1611 kHz		⑧ < 6,5 V DC	

Adjustments	SK	→	◇	▭	⌒	⊓
Quadrature detector	FM	93 MHz 40 uV △f = 22,5 kHz	B		5150	V_L ⩽ 200 mV DC between 11 and 15 7150
FM limiting sensivity	FM	93 MHz 14 uV f mod = 400Hz △f = 22,5 kHz	B		3155	⑤ = 1,25 V ±0,1 V DC
AM search sensivity	MW	990 kHz 70 uV	A		3157	⑥ = 1,75 V ±0,1 V DC
Dolby level	Cass	MTT 150			3259	⑨ = 337 mV± 1 dB
					3258	⑩ = 337 mV± 1 dB

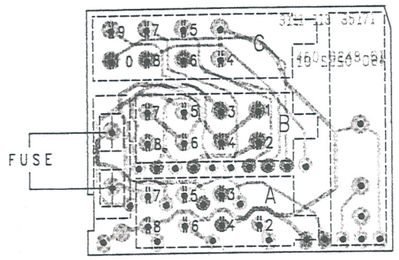


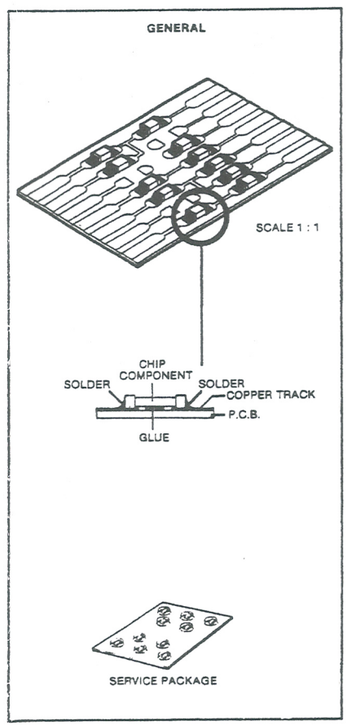


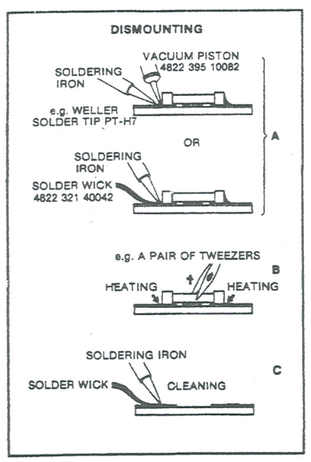
For adjusting and checking see general procedures

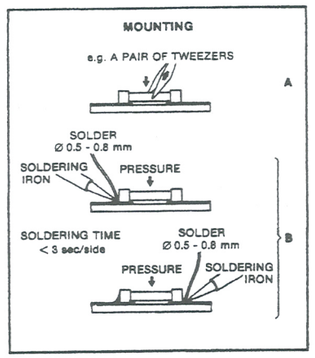
Check	SK	→	◇	▭	Setting of controls		
FM-Mute	FM	93 MHz 1 mV	B			① 0 dB (775 mV)	
		no signal				① <-24dB	
Demodulated FM levels	FM	98 MHz 1 mV △f = 22,5 kHz f mod = 1 kHz	B			③ 200mV ± 1dB	
		98 MHz 1 mV △f = 6,75 kHz f mod = 19 kHz				③ 50mV ± 1dB	
		98 MHz 1 mV f = 3,75 kHz f mod = 57 kHz				③ 20mV ± 1dB	
Demodulated AM level	MW	1053 kHz 1 mV 1 kHz 30% AM	A			250 mV⩽ ④ ⩽500 mV	
VC-FM	FM			87,5 MHz		⑦ > 1,0 V DC	
				108 MHz		⑦ < 6,5 V DC	
VC-AM	LW			144 kHz		⑧ > 0,8 V DC	
	MW			1611 kHz		⑧ < 6,5 V DC	

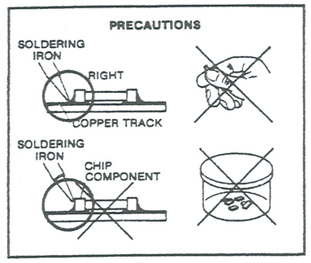
Adjustments	SK	→	◇	▭		
Quadrature detector	FM	93 MHz 40 uV △f = 22,5 kHz	B		5150	V_L ⩽ 200 mV DC between 11 and 15 7150
FM limiting sensivity	FM	93 MHz 14 uV f mod = 400Hz △f = 22,5 kHz	B		3155	⑤ = 1,25 V ±0,1 V DC
AM search sensivity	MW	990 kHz 70 uV	A		3157	⑥ = 1,75 V ±0,1 V DC
Dolby level	Cass	MTT 150			3259	⑨ = 337 mV± 1 dB
					3258	⑩ = 337 mV± 1 dB

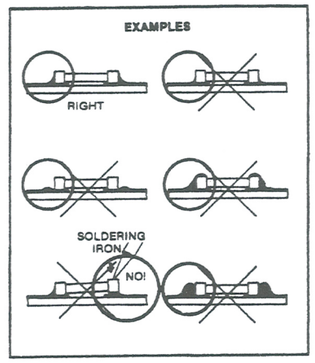


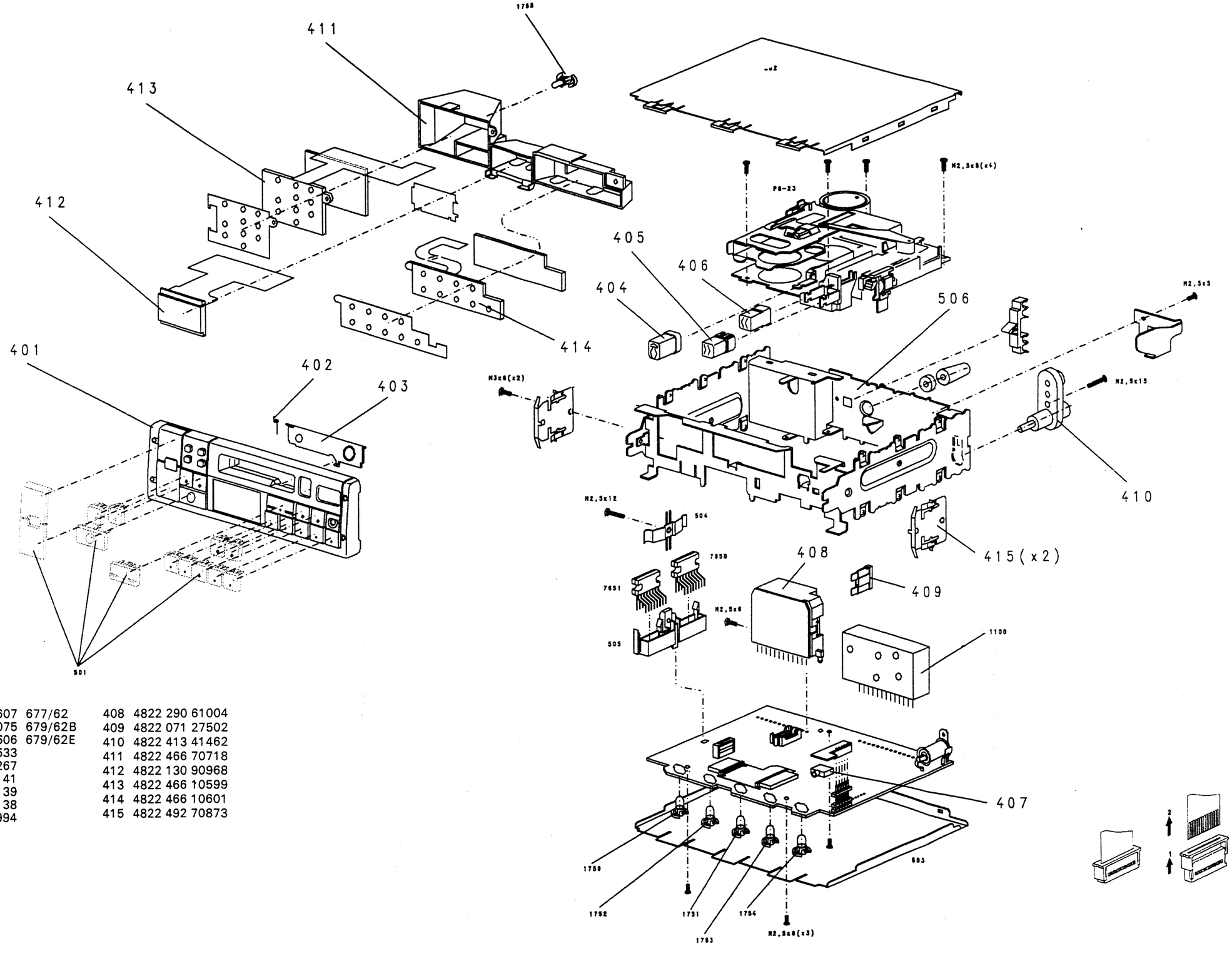












401	4822 459 50607	677/62	408	4822 290 61004	
401	4822 423 51075	679/62B	409	4822 071 27502	
401	4822 459 50506	679/62E	410	4822 413 41462	
402	4822 492 42533		411	4822 466 70718	
403	4822 443 63267		412	4822 130 90968	
404	4822 410 61141		413	4822 466 10599	
405	4822 410 61139		414	4822 466 10601	
406	4822 410 61138		415	4822 492 70873	
407	4822 267 40994				

WARNING :

To avoid a risk of no correct action on the knobs after rebuilding the set, take care to lock the front on the four locking points :
One on each extremity of the ornemental front and one each side of the DISPLAY.
To be sure that the display foil is well inserted in the connectors, it must be perfectly flat on the plastic brace after locking of these.

7050	TEA 6200/V1	4822 209 72247
7150	TEA 6100/N3	4822 209 73507
7151	TSA 6057/C7	4822 209 61954
7250	TA 7748P	4822 209 71871
7450	TMP 47C800N	4822 209 63729
7451	PCF 8576T	4822 209 11129
7452	ST24C02CP	4822 209 62098
7550	TEA 6310T/V4	4822 209 72892
7650	TDA 1516BQ/N2	4822 209 72894
7651	TDA 1516BQ/N2	4822 209 72894
7750	L 4918H	4822 209 72253
7751	L 4904	4822 209 72252

6051	BB 809	5322 130 31684
6100	1N4148	4822 130 30621
6150	1N4148	4822 130 30621
6210	1N4148	4822 130 30621
6251	BZX79-C4V7	4822 130 34174
6252	BAV10	4822 130 30594
6253	1N4148	4822 130 30621
6350	1N4148	4822 130 30621
6450	BZX79-B5V6	4822 130 34173
6451	BAX14	4822 130 34193
6452	BZX79-C4V7	4822 130 34174
6650	1N4148	4822 130 30621
6750	BZX79-C4V7	4822 130 34174
6751	1N4148	4822 130 30621
6752	1N4148	4822 130 30621
6753	1N4002	5322 130 30684
6754	1N4002	5322 130 30684

7152	BC 847 B	4822 130 60511
7210	T.CHIP BC858B	5322 130 41983
7211	T.CHIP BC858B	5322 130 41983
7213	T.CHIP BC858B	5322 130 41983
7251	T.CHIP BC847B	4822 130 6051.1
7351	T.CHIP BFS19	4822 130 42353
7352	T.CHIP BFS19	4822 130 42353
7353	BC 547 B	4822 130 40959
7354	BC 547 B	4822 130 40959
7752	ON 4414	4822 130 62651
7753	BC 547 B	4822 130 40959
7754	BC 547 B	4822 130 40959
7755	BD 437	4822 130 40982
7756	T.CHIP BC847B	4822 130 60511
7757	T.CHIP BC847B	4822 130 60511
7758	T.CHIP BC847B	4822 130 60511
7759	BC 635	5322 130 44349

5050	10 µH	4822 152 20677
5051	10 µH	4822 152 20677
5052	4.7 µH	4822 157 60122
5053	33 µH	4822 152 20678
5054	1000 µH	4822 157 50975
5055	6.15 µH	4822 152 20682
5056	33 µH	4822 152 20678
5057	28 µH	4822 152 20683
5058	68 µH	4822 152 20679
5150	1.47 µH	4822 156 11081
5152	560 µH	4822 157 51503
5750	1000 µH	4822 157 50975
5751	160 µH	4822 152 20681

2070	CHIP 1nF	5322 122 31647
2071	CHIP 10pF	4822 122 33212
2072	CHIP 33pF	4822 122 33215
2073	CHIP 270pF	4822 122 33216
2074	CHIP 270pF	4822 122 33216
2075	CHIP 10nF	4822 122 33177
2076	CHIP 22nF	4822 122 33555
2077	22µF 16V	4822 124 41796
2078	CHIP 220nF	4822 122 32916
2080	CHIP 1nF	5322 122 31647
2081	CHIP 3.3pF	4822 122 32079
2082	CHIP 150pF	4822 122 33335

2084	33µF 16V	4822 124 40272
2085	1µF 50V	4822 124 41795
2086	CHIP 100nF	4822 122 33104
2087	CHIP 22pF	4822 122 33213
2088	CHIP 100nF	4822 122 33104
2089	47µF 16V	4822 124 23624
2090	CHIP 4.7nF	4822 122 33339
2091	CHIP 1.8nF	4822 122 33219
2092	CHIP 22nF	4822 122 33555
2100	CHIP 22nF	4822 122 33555
2101	CHIP 100nF	4822 122 33104
2102	CHIP 68pF	4822 122 33514
2150	CHIP 100nF	4822 122 33104
2151	CHIP 47nF	4822 122 32542
2152	CHIP 47nF	4822 122 32542
2153	CHIP 150pF	4822 122 33181
2154	CHIP 22nF	4822 122 33555
2155	CHIP 100nF	4822 122 33104
2156	CHIP 22nF	4822 122 33555
2157	33µF 16V	4822 124 40272
2158	CHIP 8.2nF	4822 122 33336
2159	CHIP 47nF	4822 122 32542
2160	2.2µF 63V	4822 124 40244
2161	CHIP 150pF	4822 122 33181
2162	CHIP 2.7nF	4822 122 33176
2170	CHIP 22nF	4822 122 33555
2171	CHIP 22nF	4822 122 31797
2172	CHIP 220nF	4822 122 32916
2173	CHIP 220nF	4822 122 32916
2174	CHIP 22nF	4822 122 33555
2175	33µF 16V	4822 124 40272
2176	47µF 16V	4822 124 23624
2177	CHIP 27pF	4822 122 33214
2200	CHIP 220nF	4822 122 32916
2201	CHIP 220nF	4822 122 32916
2202	33µF 16V	4822 124 40272
2210	220µF 10V	4822 124 41554
2211	CHIP 5.6nF	4822 122 33221
2212	CHIP 5.6nF	4822 122 33221
2213	CHIP 1nF	5322 122 31647
2215	10µF 16V	4822 124 22403
2221	33µF 16V	4822 124 40272
2222	CHIP 8.2nF	4822 122 32856
2223	CHIP 8.2nF	4822 122 32856
2224	CHIP 10nF	4822 122 33177
2250	100µF 10V	4822 124 22711
2251	CHIP 22nF	4822 122 33555
2252	220µF 10V	4822 124 41554
2253	220nF 63V	4822 121 42408
2254	220nF 63V	4822 121 42408
2261	CHIP 820pF	4822 122 33218
2262	CHIP 820pF	4822 122 33218
2263	CHIP 820pF	4822 122 33218
2264	CHIP 820pF	4822 122 33218
2265	10µF 16V	4822 124 22403
2266	33µF 16V	4822 124 40272
2267	33µF 16V	4822 124 40272
2268	33µF 16V	4822 124 40272
2269	CHIP 2.7nF	4822 122 33176
2270	CHIP 2.7nF	4822 122 33176
2271	CHIP 220nF	4822 122 32916
2272	CHIP 220nF	4822 122 32916
2273	CHIP 100nF	4822 122 33104
2350	2.2µF 63V	4822 124 40244
2351	2.2µF 63V	4822 124 41654
2352	47µF 16V	4822 124 23624
2353	47µF 16V	4822 124 23624
2354	CHIP 1nF	4822 122 33837
2355	CHIP 1nF	4822 122 33837
2356	CHIP 220nF	4822 122 32916
2357	CHIP 220nF	4822 122 32916
2358	CHIP 220nF	4822 122 32916
2359	CHIP 220nF	4822 122 32916
2450	CHIP 10pF	4822 122 33212
2451	CHIP 10pF	4822 122 33212
2452	33µF 16V	4822 124 40272
2453	CHIP 22nF	4822 122 31797
2454	CHIP 33pF	4822 122 33215
2455	CHIP 33pF	4822 122 33215
2456	47µF 16V	4822 124 23624
2457	CHIP 22nF	4822 122 33555
2458	CHIP 22nF	4822 122 33555
2550	CHIP 22nF	4822 122 31797
2551	CHIP 33nF	4822 122 31981
2552	CHIP 33nF	4822 122 31981

2553	CHIP 5.6nF	4822 122 33221
2554	CHIP 5.6nF	4822 122 33221
2555	22µF 16V	4822 124 23548
2556	100µF 10V	4822 124 22711
2560	CHIP 220nF	4822 122 32916
2561	CHIP 220nF	4822 122 32916
2562	CHIP 220nF	4822 122 32916
2563	CHIP 220nF	4822 122 32916
2660	CHIP 270pF	4822 122 33216
2661	CHIP 270pF	4822 122 33216
2662	CHIP 270pF	4822 122 33216
2663	CHIP 270pF	4822 122 33216
2665	220µF 10V	4822 124 41554
2666	220µF 10V	4822 124 41554
2667	CHIP 100nF	4822 122 33104
2668	CHIP 100nF	4822 122 33104
2669	CHIP 4.7nF	4822 122 33339
2670	CHIP 4.7nF	4822 122 33339
2671	CHIP 4.7nF	4822 122 33339
2672	CHIP 4.7nF	4822 122 33339
2673	1000µF 10V	4822 124 22411
2674	1000µF 10V	4822 124 22411
2675	100µF 16V	4822 124 41643
2750	33µF 16V	4822 124 40272
2751	1µF 50V	4822 124 41795
2752	22µF 16V	4822 124 41796
2753	CHIP 100nF	4822 122 33104
2754	33µF 16V	4822 124 40272
2755	100µF 10V	4822 124 23432
2756	2.2µF 63V	4822 124 40244
2757	33µF 16V	4822 124 40272
2758	33µF 16V	4822 124 40272
2759	2200µF 16V	4822 124 22412
2760	100µF 16V	4822 124 41643
2761	CHIP 2.7nF	4822 122 33176

3070	CHIP 560R 0.1W	4822 051 20561
3071	CHIP 470R 0.1W	4822 051 20471
3072	CHIP 220K 0.1W	4822 051 20224
3073	CHIP 4.7K 0.1W	4822 051 20472
3074	CHIP 1K 0.1W	4822 051 20102
3075	CHIP 1K 0.1W	4822 051 20102
3076	CHIP 22K 0.1W	4822 051 20223
3077	CHIP 220K 0.1W	4822 051 20224
3078	CHIP JUMPER	4822 051 10008
3100	CHIP 5.6K 0.1W	4822 051 20562
3101	CHIP 1K 0.1W	4822 051 20102
3150	CHIP 1K 0.1W	4822 051 20102
3151	CHIP 330R 0.1W	4822 051 20331
3152	CHIP 2.2M 0.1W	4822 051 20225
3153	CHIP 3.3K 0.1W	4822 051 20332
3154	CHIP 10R 0.1W	4822 051 20109
3155	10K LIN 0.1W	4822 100 20166
3156	CHIP 2.2K 0.1W	4822 051 20222
3157	10K LIN 0.1W	4822 100 20166
3158	CHIP 10R 0.1W	4822 051 20109
3159	CHIP 750R 0.1W	4822 051 20751
3160	CHIP 4.7K 0.1W	4822 051 20472
3161	CHIP 39K 0.1W	4822 051 20393
3162	3K9 0.4W	4822 050 13902
3163	CHIP 270R 0.1W	4822 051 20271
3164	CHIP 39K 0.1W	4822 051 20393
3165	CHIP 2.2K 0.1W	4822 051 20222
3166	CHIP 220R 0.1W	4822 051 20221
3170	CHIP 2.7K 0.1W	4822 051 20272
3171	CHIP 10K 0.1W	4822 051 20103
3172	CHIP 330R 0.1W	4822 051 20331
3174	CHIP 39K 0.1W	4822 051 20393
3175	CHIP 39K 0.1W	4822 051 20393
3200	CHIP 620K 0.1W	4822 051 20624
3201	CHIP 10R 0.1W	4822 051 20109
3202	CHIP 100K 0.1W	4822 051 20104
3210	CHIP 39R 0.1W	4822 051 20399
3211	CHIP 2.2M 0.1W	4822 051 20225
3212	CHIP 2.2M 0.1W	4822 051 20225
3213	CHIP 10K 0.1W	4822 051 20103
3214	CHIP 15K 0.1W	4822 051 20153
3221	CHIP 15K 0.1W	4822 051 20153
3222	CHIP 15K 0.1W	4822 051 20153
3223	CHIP 5.1K 0.1W	4822 051 20512
3224	CHIP 680R 0.1W	4822 051 20681
3225	CHIP 15K 0.1W	4822 051 20153
3230	CHIP JUMPER *	4822 051 10008
3250	CHIP 22K 0.1W	4822 051 20223

677 only
* 679 only

3251	CHIP 10K 0.1W	4822 051 20103
3252	CHIP 1K 0.1W	4822 051 20102
3253	CHIP 1K 0.1W	4822 051 20102
3254	CHIP 1.5K 0.1W	4822 051 20152
3255	CHIP 39K 0.1W	4822 051 20393
3256	CHIP 39K 0.1W	4822 051 20393
3258	2.2K TRIM.POT	4822 100 11212
3259	2.2K TRIM.POT	4822 100 11212
3260	CHIP 390K 0.1W	4822 051 20394
3261	CHIP 390K 0.1W	4822 051 20394
3262	CHIP 470R 0.1W	4822 051 20471
3263	CHIP 470R 0.1W	4822 051 20471
3264	CHIP 5.6K 0.1W	4822 051 20562
3265	CHIP 82K 0.1W	4822 051 20823
3266	CHIP 82K 0.1W	4822 051 20823
3267	CHIP 1M 0.1W	4822 051 20105
3268	CHIP 1M 0.1W	4822 051 20105
3269	CHIP 56K 0.1W	4822 051 20563
3270	CHIP 56K 0.1W	4822 051 20563
3271	CHIP 15K 0.1W	4822 051 20153
3272	CHIP 15K 0.1W	4822 051 20153
3273	CHIP 3.3K 0.1W	4822 051 20332
3274	CHIP 5.6K 0.1W	4822 051 20562
3275	CHIP 3.3K 0.1W	4822 051 20332
3351	CHIP 39K 0.1W	4822 051 20393
3352	CHIP 39K 0.1W	4822 051 20393
3355	CHIP 68K 0.1W	4822 051 20683
3356	CHIP 68K 0.1W	4822 051 20683
3357	CHIP 68K 0.1W	4822 051 20683
3358	CHIP 68K 0.1W	4822 051 20683
3359	CHIP 22K 0.1W	4822 051 20223
3361	CHIP 120R 0.1W	4822 051 20121
3362	CHIP 120R 0.1W	4822 051 20121
3363	CHIP 3.3K 0.1W	4822 051 20332
3364	CHIP 3.3K 0.1W	4822 051 20332
3365	CHIP 3.3K 0.1W	4822 051 20332
3366	CHIP 3.3K 0.1W	4822 051 20332
3367	CHIP 1K 0.1W	4822 051 20102
3369	CHIP 1K 0.1W	4822 051 20102
3370	CHIP 1K 0.1W	4822 051 20102
3371	CHIP 5.6K 0.1W	4822 051 20562
3372	CHIP 5.6K 0.1W	4822 051 20562
3450	CHIP 22K 0.1W	4822 051 20223
3451	CHIP 22K 0.1W	4822 051 20223
3452	CHIP 22K 0.1W	4822 051 20223
3453	CHIP 22K 0.1W	4822 051 20223
3454	CHIP 22K 0.1W	4822 051 20223
3455	CHIP 22K 0.1W	4822 051 20223
3456	CHIP 22K 0.1W	4822 051 20223
3458	CHIP 22K 0.1W	4822 051 20223
3459	CHIP 4.7K 0.1W	4822 051 20472
3460	CHIP 4.7K 0.1W	4822 051 20472
3461	CHIP 4.7K 0.1W #	4822 051 20472
3462	CHIP 4.7K 0.1W	4822 051 20472
3463	CHIP 18K 0.1W	4822 051 20183
3464	CHIP 1K 0.1W	4822 051 20102
3465	CHIP 18K 0.1W	4822 051 20183
3466	CHIP 1K 0.1W	4822 051 20102
3471	CHIP 39K 0.1W	4822 051 20393
3472	CHIP 330R 0.1W	4822 051 20331
3473	CHIP 2.7K 0.1W	4822 051 20272
3474	CHIP 39K 0.1W	4822 051 20393
3476	CHIP 1.5K 0.1W	4822 051 20152
3480	CHIP 180K 0.1W	4822 051 20184
3484	CHIP JUMPER	4822 051 10008
3487	CHIP JUMPER #	4822 051 10008
3488	CHIP 100K 0.1W	4822 051 20104
3489	CHIP 22K 0.1W	4822 051 20223
3550	CHIP 68K 0.1W	4822 051 20683
3551	CHIP 4.7K 0.1W	4822 051 20472
3552	CHIP 39K 0.1W	4822 051 20393
3650	CHIP 82K 0.1W	4822 051 20823
3651	CHIP 82K 0.1W	4822 051 20823
3652	CHIP 82K 0.1W	4822 051 20823
3653	CHIP 82K 0.1W	4822 051 20823
3660	CHIP 4.7R 0.1W	4822 051 20478
3661	CHIP 4.7R 0.1W	4822 051 20478
3662	CHIP 4.7R 0.1W	4822 051 20478
3663	CHIP 4.7R 0.1W	4822 051 20478
3664	CHIP 2.2K 0.1W	4822 051 20222
3665	CHIP 15K 0.1W	4822 051 20153
3750	CHIP 75R 0.1W	4822 051 20759
3751	CHIP 10K 0.1W	4822 051 20103
3753	CHIP 15K 0.1W	4822 051 20153
3754	CHIP 100K 0.1W	4822 051 20104
3755	CHIP 100K 0.1W	4822 051 20104
3756	CHIP 10K 0.1W	4822 051 20103
3757	CHIP 4.7K 0.1W	4822 051 20472
3758	680R 0.6W	4822 050 26801
3759	680R 0.6W	4822 050 26801
3760	680R 0.6W	4822 050 26801
3761	CHIP 75R 0.1W	4822 051 20759
3762	CHIP 270R 0.1W	4822 051 20271
3764	CHIP 2.2K 0.1W	4822 051 20222
3766	CHIP 10K 0.1W	4822 051 20103
3767	CHIP 330R 0.1W	4822 051 20331
3768	CHIP 10R 0.1W	4822 051 20109
3769	CHIP 10R 0.1W	4822 051 20109
3772	CHIP 1K 0.1W	4822 051 20102
3773	100R 1W	4822 053 10101
3777	10R 1W	4822 053 10109

MISCELLANEOUS

1100	TUNER	4822 210 10305
1200	IAC THIFILM	4822 214 51676
1201	STD THIFILM	4822 214 51856
1251	DBB THIFILM	4822 214 51863
1400	SDK THIFILM #	4822 214 51644
1750	LAMP 14V. 65mA	4822 134 41064
1751	LAMP 14V. 65mA	4822 134 41064
1752	LAMP 14V. 65mA	4822 134 41064
1753	LAMP 14V. 80mA	4822 134 41063
1754	LAMP 14V. 80mA	4822 134 41063
1755	LAMP 14V. 100mA	4822 134 41065
5070	CRYSTAL 10.7MHz	4822 242 72076
5071	CRYSTAL 10.7MHz	4822 242 72076
5072	RESON SFE 10,7S	4822 242 80209
5073	RESON SFE 10,7S	4822 242 80209
5100	RESON SFE 10,7S	4822 242 71341
5170	CRYSTAL 4MHz	4822 242 71874
5450	RESONATOR	4822 242 72579

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#91

Car cassette deck P6–25/

P6–25/

464

Service
Service
Service

ERSATZTEILE
für Philips Car Systems
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KiVi Service GmbH
Windmühlenstr. 41 · 31178 Giesen/Emmerke
Tel.: 0 51 21 / 6 00 20 · Fax 0 51 21 / 60 02 54

ServiceManua

For this versions, please refer to the Service Manual P6 version 16 (from week 140) with following exceptions: the motor has been mounted at the left side, the playback head has been replaced by a Dolby version,MSS has been added (only P6–25/3).
This deviations have been incorporated in the exploded view and in the complete list of parts

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464

A	4822 390 20128	
B	4822 390 10107	
D	4822 390 20116	
101	4822 466 81479	
102	4822 462 30242	
103	4822 466 70526	
104	4822 466 70527	
107	4822 522 20325	
109	4822 522 20327	
113	4822 520 30406	
114	4822 492 90076	
116	4822 528 80985	
117	4822 358 31136	
118	4822 520 30407	
119	4822 403 40157	
122	4822 249 30179	
123	4822 528 80983	
124	4822 459 80209	
126	4822 277 10749	
127	4822 277 10748	
128	4822 522 20326	
131	4822 276 13081	
130	4822 403 52509	
132	4822 361 21103	
133	4822 502 12548	
134	4822 403 10225	
135	4822 492 63217	
136	4822 403 52031	
137	4822 528 80984	
139	4822 404 21169	
149	4822 404 20568	
150	4822 492 41275	
155	4822 528 81144	
166	4822 404 20593	
167	4822 404 20585	
168	4822 256 91801	
171	4822 404 20951	P6-25/2
171	4822 404 21174	P6-25/3
172	4822 492 63216	
174	4822 321 61271	P6-25/2
174	4822 321 61516	P6-25/3
175	4822 404 21173	P6-25/3
176	4822 281 50113	P6-25/3
177	4822 281 60165	P6-25/3
180	4822 256 91799	
183	4822 492 71064	
184	4822 404 21232	P6-25/3

Deck complete: 4822 701 12683 P6-25/2
4822 701 12684 P6-25/3

P6-25/2